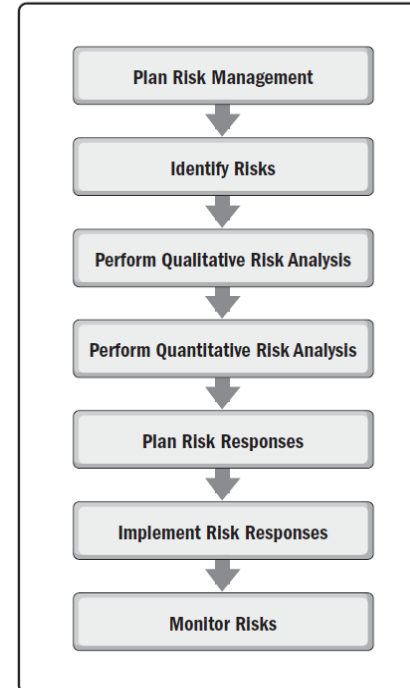


# Threats, Opportunities, & the Risk Process

Presented by: Robert Webb

- Agenda
  - Risk Management Standards
  - Risk Management Process
    - Plan
    - Identify
    - Analyze & Evaluate
    - Plan & Implement Responses
    - Monitor
  - Questions

# Risk Management Standards



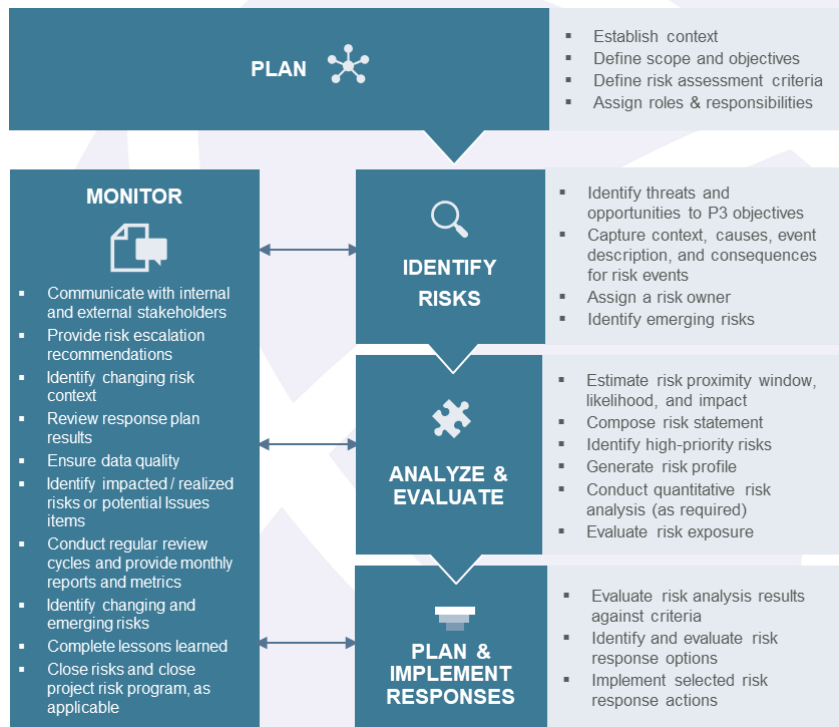
# Risk Management (RM)

The purpose of RM is to:

- *Increase* the likelihood and relevant potential consequences of positive events (opportunities), and
- *Decrease* the likelihood and relevant potential consequences of negative events (threats).

Key Factors of Risk Management:

- Flexible
- Customizable
- Comprehensive
- Scalable

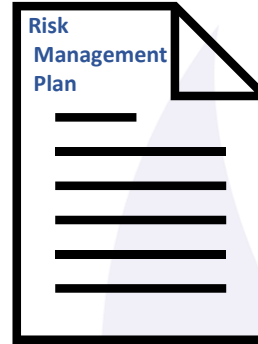


# Step 1: Plan

**Internal & External Context:** internal governance, customer expectation, contract requirements, regional environment, external stakeholders, competition, etc.

**Risk Criteria:** Consequence dimensions, rating scheme, risk matrix

**Scope & Objectives:** The objectives must be clearly identified, defined, understood, and communicated before the risk management process can be applied



Consequence Theme Impact Types	Threats				
	Very Low A	Low B	Moderate C	High D	Very High E
Regulatory	Regulatory compliance is a high priority. Non-compliance can result in significant financial and reputational damage.	Regulatory compliance is a high priority. Non-compliance can result in significant financial and reputational damage.	Regulatory compliance is a high priority. Non-compliance can result in significant financial and reputational damage.	Regulatory compliance is a high priority. Non-compliance can result in significant financial and reputational damage.	Regulatory compliance is a high priority. Non-compliance can result in significant financial and reputational damage.
Reputation	Reputation is a high priority. Negative publicity can result in significant financial and reputational damage.	Reputation is a high priority. Negative publicity can result in significant financial and reputational damage.	Reputation is a high priority. Negative publicity can result in significant financial and reputational damage.	Reputation is a high priority. Negative publicity can result in significant financial and reputational damage.	Reputation is a high priority. Negative publicity can result in significant financial and reputational damage.
Business	Business operations are a high priority. Disruption can result in significant financial and reputational damage.	Business operations are a high priority. Disruption can result in significant financial and reputational damage.	Business operations are a high priority. Disruption can result in significant financial and reputational damage.	Business operations are a high priority. Disruption can result in significant financial and reputational damage.	Business operations are a high priority. Disruption can result in significant financial and reputational damage.
Technology & Capability	Technology and capability are a high priority. Disruption can result in significant financial and reputational damage.	Technology and capability are a high priority. Disruption can result in significant financial and reputational damage.	Technology and capability are a high priority. Disruption can result in significant financial and reputational damage.	Technology and capability are a high priority. Disruption can result in significant financial and reputational damage.	Technology and capability are a high priority. Disruption can result in significant financial and reputational damage.
Security	Security is a high priority. Breach can result in significant financial and reputational damage.	Security is a high priority. Breach can result in significant financial and reputational damage.	Security is a high priority. Breach can result in significant financial and reputational damage.	Security is a high priority. Breach can result in significant financial and reputational damage.	Security is a high priority. Breach can result in significant financial and reputational damage.

Opportunities					Threats				
25	24	22	19	14	6	13	20	23	26
23	21	18	16	12	4	10	17	21	24
20	17	15	11	9	3	8	15	18	22
13	10	8	7	5	2	7	11	16	19
6	4	3	2	1	1	5	9	12	14
Very High A	High B	Moderate C	Low D	Very Low E	Very Low E	Low B	Moderate C	High D	Very High A

Consequence Impact Severity

Exceptional  
Consequential  
Slim

Critical  
Major  
Minor

# Step 2: Identify Risks

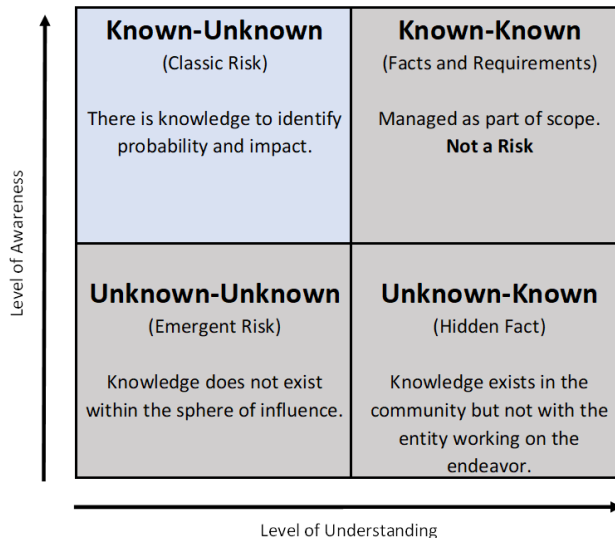
## Facilitated Risk Workshops

- Timing and number of workshops
- Scope of the workshop (program, portfolio, procurement, engineering, technology, etc.)
- Participants

## Document Reviews

## Risk Checklists

## Expert Consultations



Our focus will be the light blue square – the *Known-Unknown*

# Step 3: Analyze & Evaluate Risks

## Qualitative Data

- Descriptive
- Relates to words or language
- Subjective i.e. open to interpretation
- Data is observed, not measured
- Semi-structured or unstructured data collection methods; flexible process

**Qualitative risk analysis**—a textual description of the likelihood of the risk and its consequences to help make informed project decisions concerning risk. This can be done in an entirely free-text way in description fields.

## Quantitative Data

- Countable or measurable
- Relates to numbers
- Factual i.e. fixed values
- Data can accurately be measured
- Structured data collection requiring significant time and resources

**Quantitative risk analysis**—applies a mathematical technique such as Monte Carlo simulation to combine the cost or schedule consequences of several risks. It is normally used to provide project leadership with a view of the complete risk profile across the project.

## Semi-Quantitative Data

- Mixture of descriptive and measurable data
- Relates to number ranges
- Semi-subjective i.e. some information is available but not enough for quantitative analysis
- Semi-structured data collection from workshops, interviews, document reviews

**Semi-quantitative risk analysis**—preferred method to conduct a risk analysis.

## Step 4: Plan & Implement Responses



### Threat Handling Strategies

- Avoid
- Transfer/Share
- Mitigate
- Accept

### Opportunity Handling Strategies

- Exploit
- Share
- Enhance
- Accept



# Plan & Implement Responses: Risk Response Effectiveness

Risk Response Effectiveness Rating	Definition
Ineffective	<ul style="list-style-type: none"><li>- Significant weakness or ineffectiveness in response (incl. any controls) identified; this may mean that:<ul style="list-style-type: none"><li>• Response will not materially improve the risk position.</li><li>• Required controls are not in place or are ineffective.</li></ul></li></ul>
Needs Improvement	<ul style="list-style-type: none"><li>- Response provides partial coverage of causes and sources of uncertainty and is expected to deliver a moderate improvement in the risk once completed.</li><li>- Implementation of responses (including controls) is not going to plan or is not having the intended effect.</li></ul>
Established	<ul style="list-style-type: none"><li>- Response should provide significant benefit (i.e., threat is reduced, or opportunity is achieved) in addressing the risk, covering all identified causes and sources of uncertainty.</li><li>- Minor improvements are required to respond and adapt to the latest understanding of the risk, or additional assurance evidence is required to demonstrate that controls are working as intended.</li></ul>
Effective	<ul style="list-style-type: none"><li>- Response provides significant benefit (i.e., threat is reduced, or opportunity is achieved) in addressing the risk, covering all identified causes and sources of uncertainty.</li><li>- Assurance evidence demonstrates that controls are working as intended.</li></ul>
Insufficient Data	<ul style="list-style-type: none"><li>- More information required to assess whether the planned response (including any controls) will be effective and is being implemented as planned.</li></ul>

## Step 5: Monitor: Monitor & Review

Activity Timeline	Activity
Monthly	<p>Risk Manager, Risk Owners, and other stakeholders update risks and evaluate response plans as required by risk review requirements.</p> <p>Consider the potential for new/foreseen risks for review at the monthly risk meeting.</p> <p>Risk Manager issues reports and metrics for the monthly risk review meeting.</p>
Quarterly	<p>Conduct a full review of the risk register and RM program effectiveness review.</p>
Semi-Annually	<p>Conduct risk identification workshop(s) with relevant stakeholders.</p> <p>Conduct a health check of the risk process, initiated by Management.</p>
Annually	<p>Management, Risk Manager, and Risk Owners conduct a review of the complete risk registers, results reported to relevant stakeholders.</p>

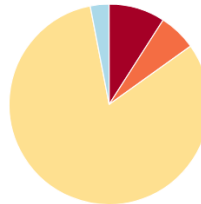
# Step 5: Monitor: Reports, Metrics, Changing & Emerging Risks

Response Grid

Cal	Current Driving Imp...	Current EMV (USD) \$	Current Priority : Risk...	Target Priority : Risk...	Trigger Date	L...	L...
	B: undefined	0	Priority 3: 5	NIL: 0	18 Aug 2023		21 J...
	A: undefined	2	Priority 3: 2	Priority 3: 5			
	B: undefined	30	Priority 2: 13	NIL: 0			
	D: undefined	66.50	Priority 1: 24	Priority 3: 7	27 Jun 2023		09 A...
	C: undefined	-35	Priority 2: -15	Priority 3: -5	22 Jul 2023		
	B: undefined	5	Priority 3: 8	NIL: 0			
	NIL: undefined	0	NIL: 0	NIL: 0			
	D: undefined	35	Priority 2: 18	Priority 2: 16			
	NIL: undefined	0	NIL: 0	NIL: 0			09 A...

Rank	Risk Title	Owner	Status	Next Review Due	Linked Impacts/Driver	Probi Freq	Current Priority : Risk Expected Score	Probi Freq	Target Priority : Risk Expected Score	
1	Threat - 27 - GoT should have a new engine	Stalton, Drew	Draft / Proposed Candidate	01 Aug 2023	(Schedule (Days))	100.0 0%	100.0 0%	100.0 0%	100.0 0%	1 to 10 of 33 < > Page 1 of 4 >
Plan ID - Title										
27 - Plan For GoT should have a new engine										
Response ID - Response Title										
63 - Data should have more secure										
Owner Status Due										
Wade, Robert Active 24 Aug 2023										
2	Threat - 372 - Risk Map Risk	Lopez, Camille	Active / Approved		(Schedule (Days))	95.00 %				
Plan ID - Title										
220 - Plan For Risk Map Risk										
Response ID - Response Title										
266 - First Action										
Owner Status Due										
Owen, Robin Active 31 Aug 2023										
3	Threat - 13 - Encryption come back - James Park is not	Wade, Robert	Active / Approved		Cost (\$)	95.00 %				
Plan ID - Title										
13 - Protection from the T Day										
Response ID - Response Title										
47 - Keep the T Day not and happy										
Owner Status Due										
Stalton, Drew Proposed 30 Jun 2023										
4	Threat - 33 - People is better than	Stragiot, Cars	Active / Approved	30 Jun 2023	(Schedule (Days))	100.0 0%				
Plan ID - Title										
23 - Plan For Apple is better than										
Owner Status Due										
Undefined										

Risk by Status



● Active / Approved  
● Closed  
● Draft / Proposed Candidate  
● Closed - Impacted

## Changing & Emerging Risks:

- **Continual surveillance** for emerging risks and changes in existing risks
- **Recurring risk workshops**
- Revised assessments for **changes in risk status**

# Questions?

Risk 120: Sunday NFL games are canceled causing families to have to spend time together

Risk 120: Tik-Tok app crashes for 6 hours causing mass panic among teens and influencers

Risk 185: Car turns into Optimus Prime or other Transformer leading to invalidation of car insurance

Risk 237: Aliens escape from Area 51 and implement mind control technology

Risk 1: Indecisiveness  
Risk 2: Over analysis  
Risk 3: Cluelessness  
Risk 4: Micromanagement...

I don't understand these risks

That's risk number twenty-eight

Risk 72: Teen listens to parent's advice and graduates magna cum laude

Risk 48: "It's a Small World" plays on repeat causing a shortage of noise cancelling headphones

